

National Aeronautics and
Space Administration



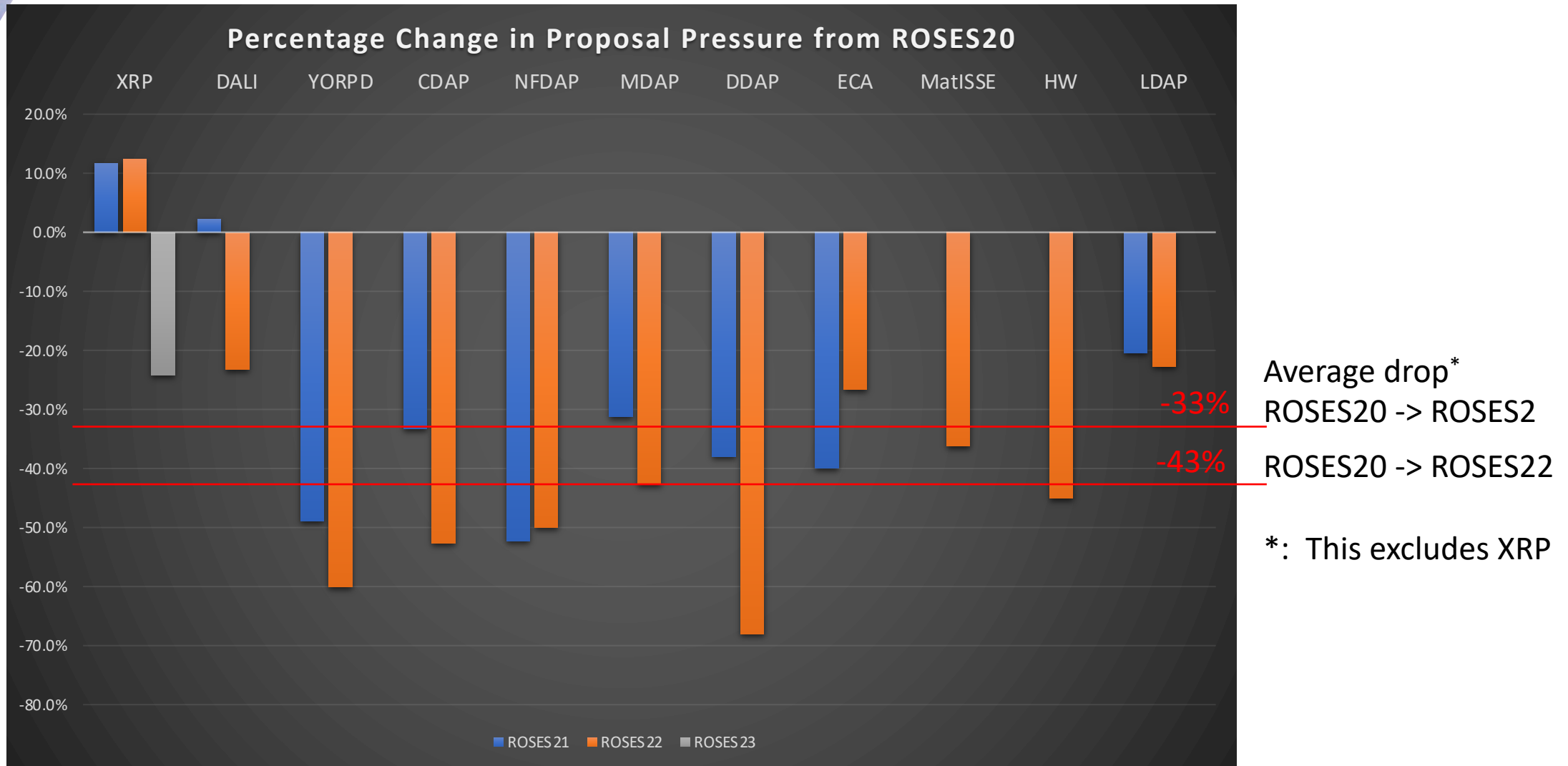
EXPLORE SOLAR SYSTEM & BEYOND

Dr. Stephen Rinehart
Director, Planetary Research Programs

PAC Meeting
June 21, 2023

Planetary Science Division ROSES 22 Programs	Step-1 Due Date	Step-2 Due Date	Panels Held	Selections/Proposals	Selection Dates	Days from Step-2 to Select
Exoplanets Research Program	03/31/2022	05/26/2022	Yes	30/173 (17%)	08/30/2022	96
Maturation of Instruments for Solar System Exploration	04/06/2022	07/14/2022	Yes	5/37 (14%)	10/20/22	98
Planetary Science Enabling Facilities	04/08/2022	06/03/2022	Yes	10/25 (40%)	10/31/22	150
Development and Advancement of Lunar Instrumentation	04/13/2022	06/15/2022	Yes	5/33 (15%)	2/28/23	258
Yearly Opportunities for Research in Planetary Defense	04/21/2022	06/16/2022	Yes	8/17 (47%)	12/2/22	169
Cassini Data Analysis Program ¹	05/05/2022	07/07/2022	Yes	8/27 (30%)	0/26/22	81
Martian Moons eXploration Participating Scientist Program	06/16/2022	08/16/2022	Yes	XX/49	4/12/23	239
Planetary Protection Research	06/21/2022	07/20/2022	Yes	5/15 (33%)	12/20/22	153
Discovery Data Analysis ¹	09/06/2022	11/01/2022	Yes	9/16 (56%)	5/22/23	202
New Frontiers Data Analysis Program ¹	09/07/22	11/3/2022	Yes	9/22 (41%)	2/13/23	102
Mars Data Analysis ¹	09/07/2022	11/15/2022	Yes	15/55 (27%)	5/9/23	175
Analog Activities to Support Artemis Lunar Operations	N/A	12/06/2022	Yes	13/33 (39%)	2/24/23	80
Planetary Science Early Career Award	N/A	12/08/2022	Yes	5/33 (15%)	5/16/23	159
Apollo Next Generation Sample Analysis Program	10/17/2022	01/19/2023	Yes	3/7 (43%) ¹	5/23/23	124
Precursor Science Investigations for Europa	11/01/2022	12/16/2022	Yes	XX/28		
Interdisciplinary Consortia for Astrobiology Research	09/15/2022	01/20/2023	Yes	XX/28	<ul style="list-style-type: none"> Highlighted in Yellow = Cross-Divisional Not solicited in ROSES22: PSTAR 	
Habitable Worlds ¹	11/08/2022	02/03/2023	Yes	XX/39		
Lunar Data Analysis ¹	12/1/2022	02/23/2023	Yes	XX/34		
Artemis III Geology Team	2/24/23	4/25/23		XX/9		
Future Investigators in NASA Earth and Space Science and Technology	N/A	2/21/23	Yes	37/216 (17%)		

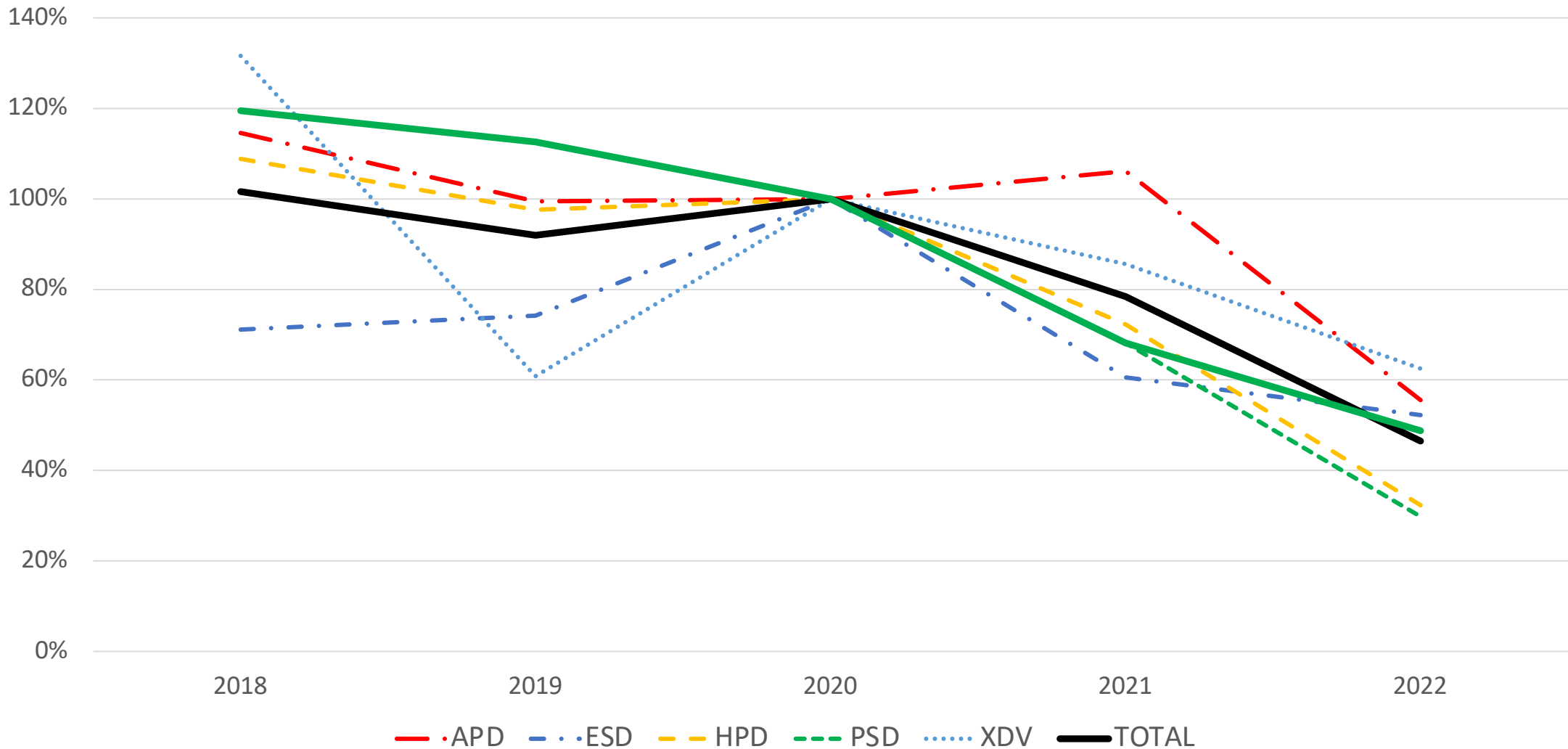
Proposal Pressure: Due Date Programs



Please email me (Stephen.A.Rinehart@nasa.gov) and tell me why **you** are not proposing!

Proposal Pressure across SMD

Proposal Pressure across SMD (normalized to ROSES20)



NoDD programs

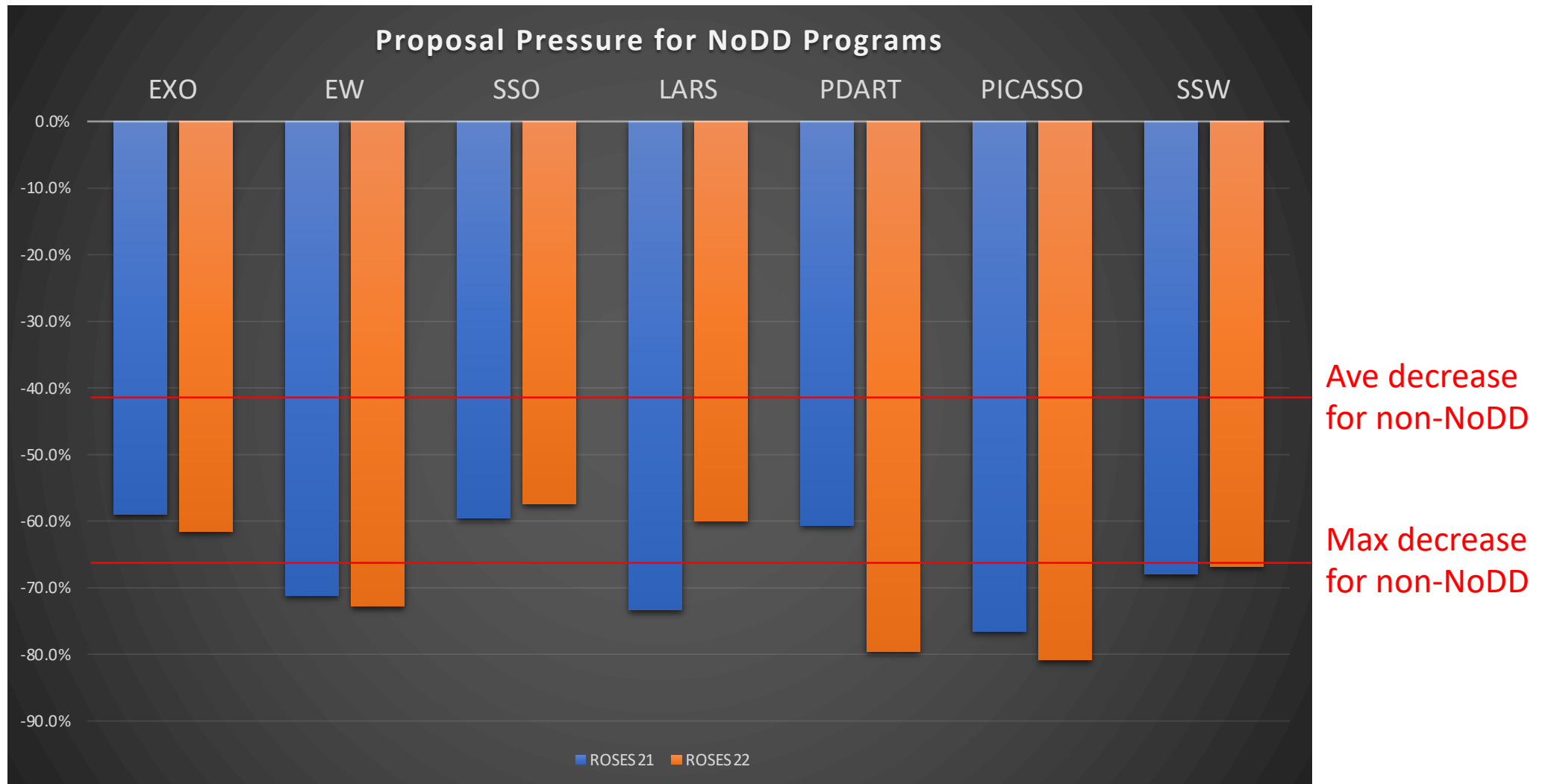
We will be reporting NoDD statistics, in general, for the past year.

	Program	Submitted	Pending	Declined	Selected	Selectable	Selection Rate (so far)	Selected	Declined	Pending
C.2	EW	33	0	16	17	0	52%	52%	48%	0%
C.3	SSW	88	25	36	27	0	43%	31%	41%	28%
C.4	PDAR	30	19	8	3	0	27%	10%	28%	62%
C.5	EXO	65	33	26	6	0	18%	9%	42%	48%
C.6	SSO	22	2	12	8	0	40%	36%	55%	9%
C.12	PICASSO	17	16	0	1	0	100%	6%	0%	94%
C.16	LARS	12	3	3	6	0	67%	33%	25%	42%

These numbers will change as the Pending proposals get reviewed.

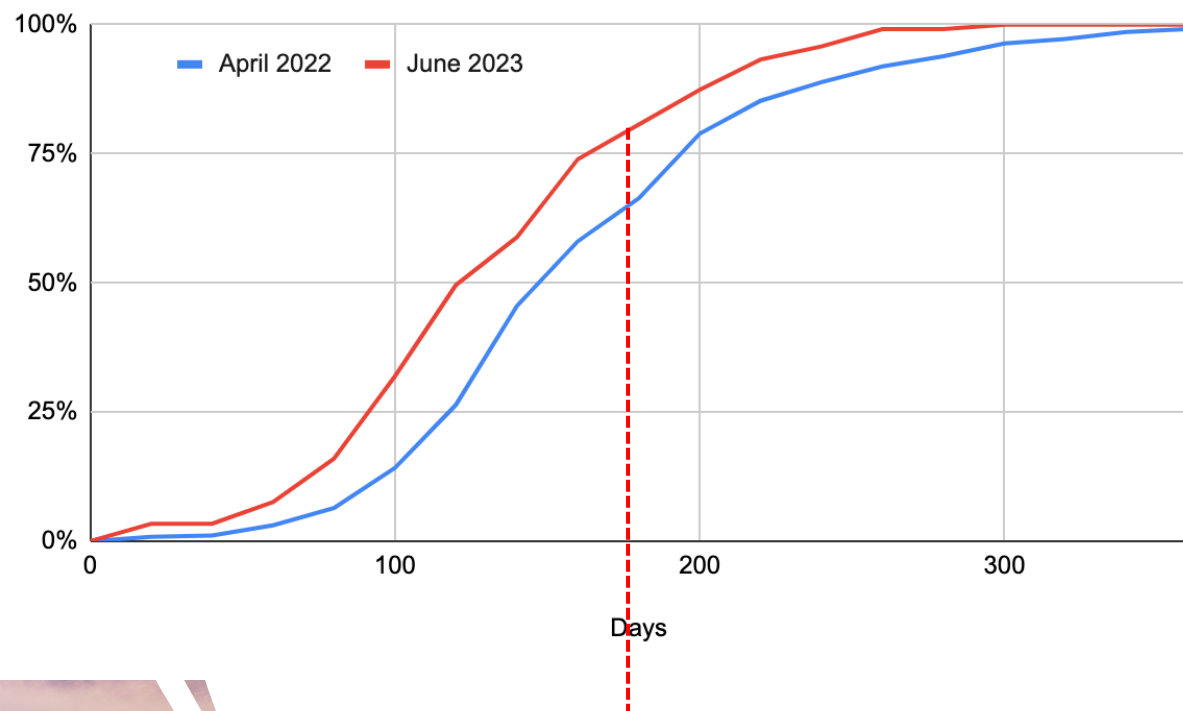
Nearly all of these will be reviewed shortly

Proposal Pressure under NoDD



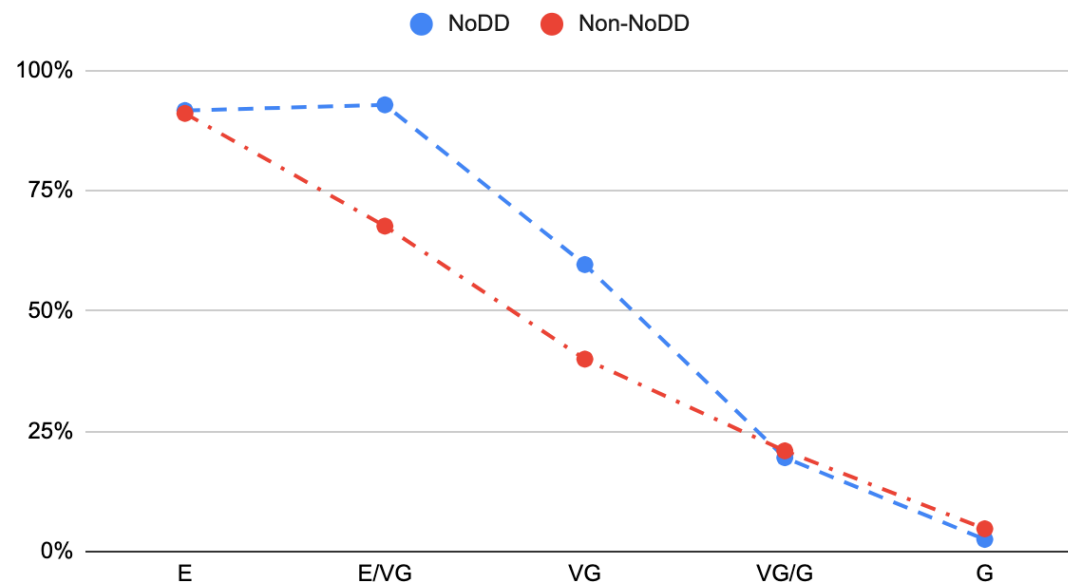
Some metrics for NoDD

Time to notification (% notified by days)



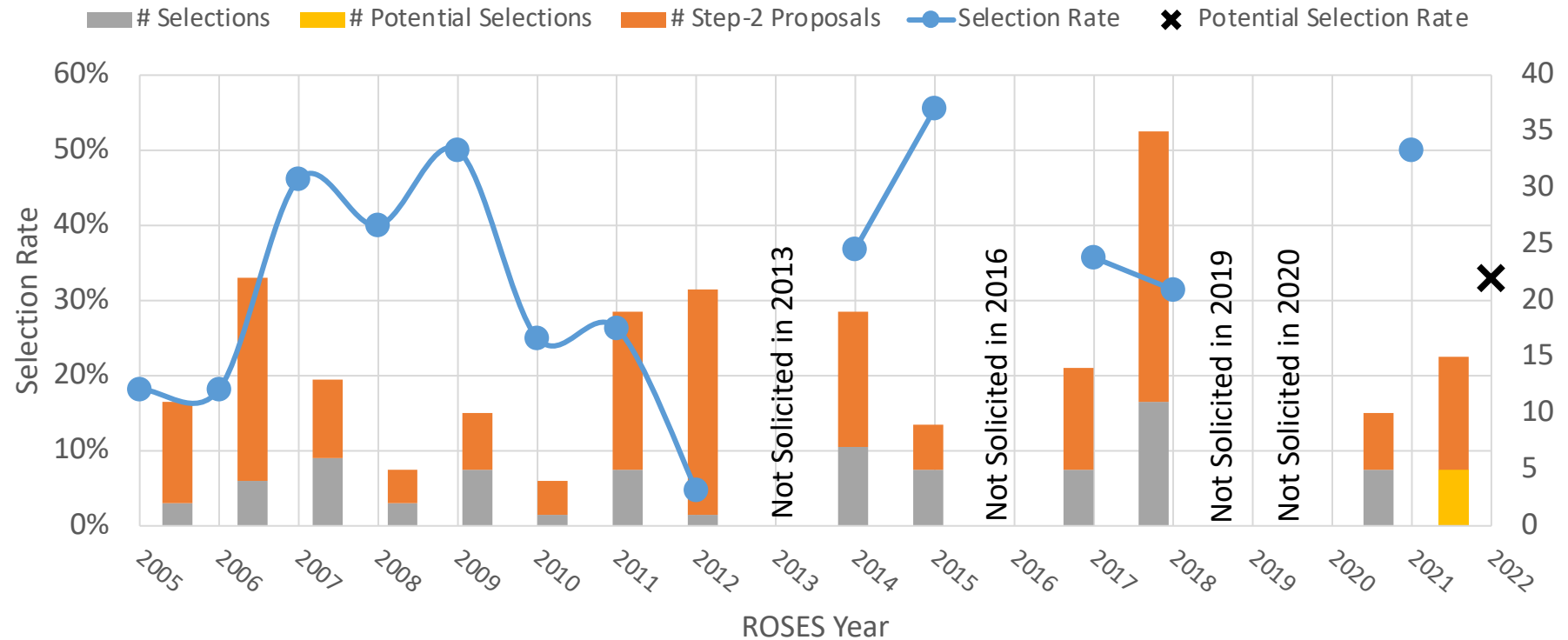
81% of proposers notified in ≤ 180 days

Percentage Selected by Grade



Selections in NoDD include a higher fraction of E/VG and VG rated proposals

PPR is Set for an Annual Cadence



- The past decade (2012-2021) has experienced large variability in whether PPR was solicited. Such variability creates challenges for researchers that can not rely on the potential funding.
- Since ROSES 2021, PPR has been solicited on a yearly cadence. This regularity should assist in growing the community of proponents to this portfolio. Funding is available to provide this consistent support.

Reminders on ROSES 23

- No Due Date (NoDD) programs (open now!)
 - <https://science.nasa.gov/researchers/NoDD>
- Remember rules on duplicate proposals (see C.1)
- Compliance: We are checking and strictly enforcing compliance rules. Non-compliant proposals may be returned without review or be declined on this basis *regardless of intrinsic merit score from the panel*.
 - Please remember, compliance rules exist in part to ensure readability and accessibility.
 - New in ROSES-23: Note that **all** critical team members (Co-Is) must be registered in NSPIRES and confirm commitment there.
 - Compliance checking scripts are now available to all at:
<https://github.com/nasa/ROSES-Compliance-Checking-Tools/blob/main/README.md>
 - The scripts come with no guarantee!

Some other notes

- DAPR town hall: June 29, 3-4 PM Eastern
- On March 29, 2023, Grants Policy and Compliance, the Office of STEM Engagement (OSTEM), the Office of Diversity and Equal Opportunity (ODEO), and the NASA Shared Services Center (NSSC) recorded an outreach session: **Ask NASA: What to Know Before Applying for NASA Grants and Cooperative Agreement**. The event focused on outreach to underserved communities and organizations that have not yet received NASA funding. The recording of the event is now available on the NASA YouTube Channel: <https://youtu.be/pdbJx7T0AdQ>.
- NASA has published a help document on Uniform Guidance for grants: https://www.nasa.gov/sites/default/files/atoms/files/navigating_the_cfr.pdf
- The pilot Astrobiology Mission Ideation Factory will take place the week of August 21. More info: <https://astrobiology.nasa.gov/events/astrobiology-mission-ideation-factory-the-search-f/>
- Astrobiology town hall planned for July 26
- NASA RFI on Increasing Access to the Results of NASA-Supported Research
 - Town hall July 14



Job Announcement

NASA HQ is hiring Civil Servant Program Scientists!

The ad is on USAJobs.gov and opens for applications tomorrow (June 22), closing next Wednesday (June 28). The listing number is:

HQ-23-DE-11986063-DS

This is a wide-open advertisement, and I encourage folks to apply if interested.

PSD anticipates hiring 1 or more new CS program scientists through this call.



NExSS Assessment

Positives:

- NExSS has demonstrably catalyzed interdisciplinary, community interactions in ways that have benefited the community, including observing campaigns, modeling, input to Decadals
- NExSS is of high value for early career researchers involved in the NExSS program

Areas for improvement:

- NASA Division representation not uniform
- Mission statement not well-defined or conveyed
- Leadership structure and selection process lack clarity
- All volunteer leadership model has not scaled with growth of NExSS

SPD-41A and the PSD Supplement

SPD-41A

- [SPD-41A](#) is the NASA policy that sets the requirements for how SMD-funded scientific information must be shared
- Scientific information = publications, data, software
- Starting in ROSES-23, proposals must now include an Open Science & Data Management Plan (OSDMP)
- See the [SMD Open Science Guidelines](#) for details on acceptable approaches to implementation

PSD Supplement

- Each SMD Division has provided a Division-level supplement to SPD-41A
- The [PSD supplement to SPD-41A](#) is now available on the [NASA Planetary Data website](#)
- Key additions include guidance on Physical Materials & Derived Science Data (Section 7)
- PSD considers this supplemental policy as a living document and seeks feedback (Section 11)

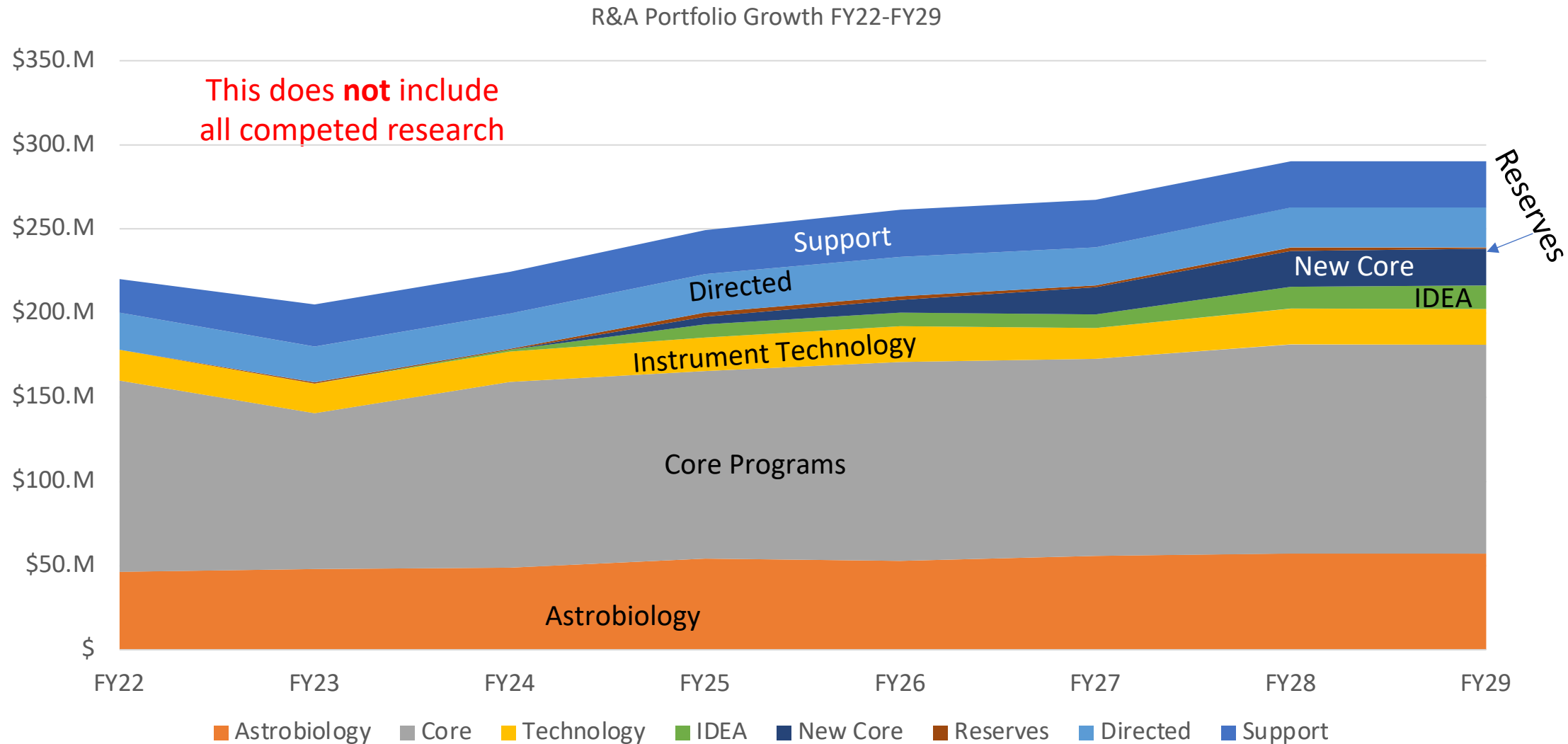


Talking about Money: Definitions

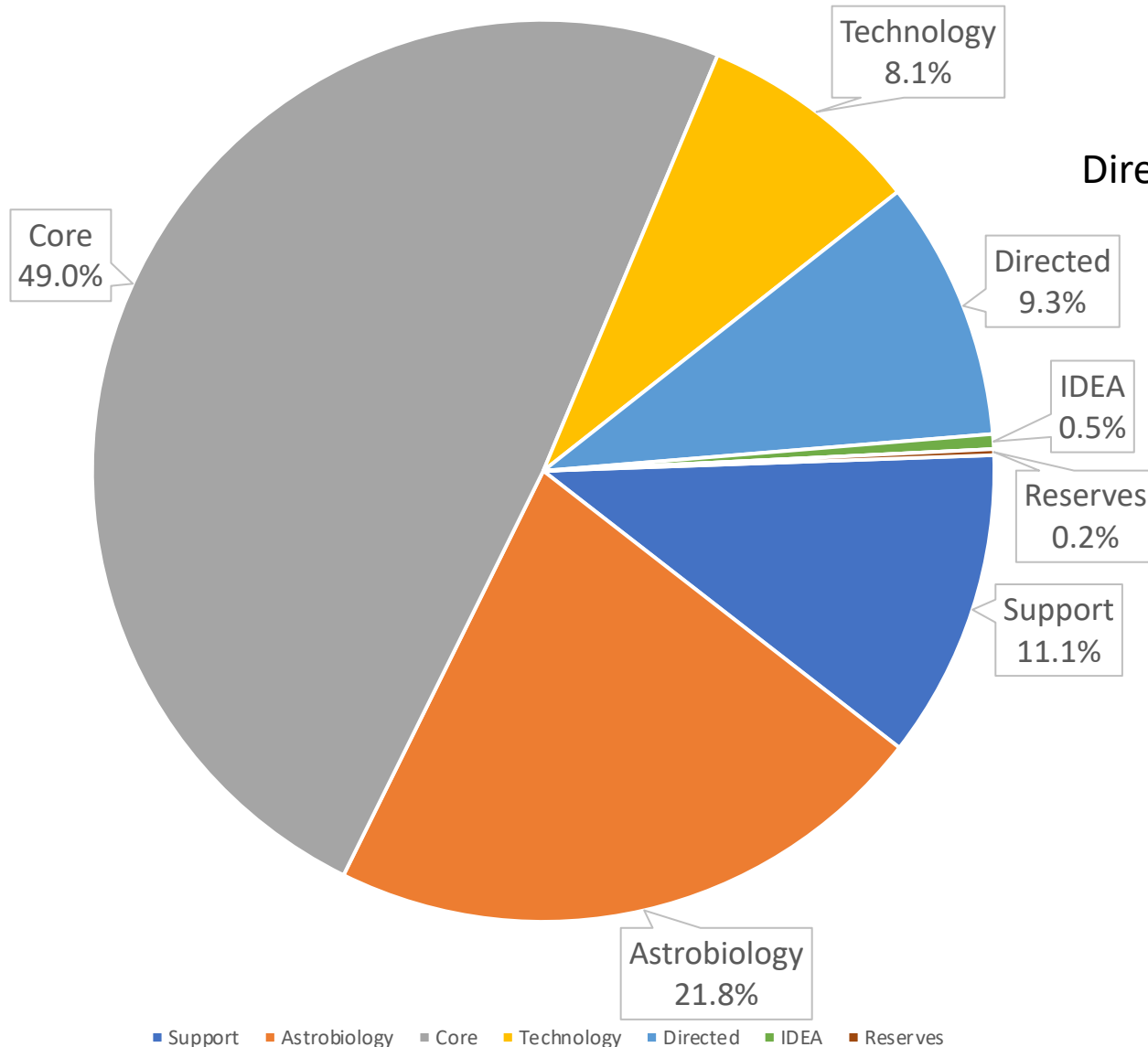
Reminder of definitions:

- The Planetary R&A Portfolio (R&A): This includes all activities funded under the R&A budget line.
- The Planetary Research Program (PRP): This includes all research activities
 - Includes activities funded under R&A and those funded through mission lines
 - Includes both openly-competed and closed-competition research

PSD R&A Budget Breakdown



FY24 Funding Distribution (R&A Portfolio)



Directed is almost entirely ISFM

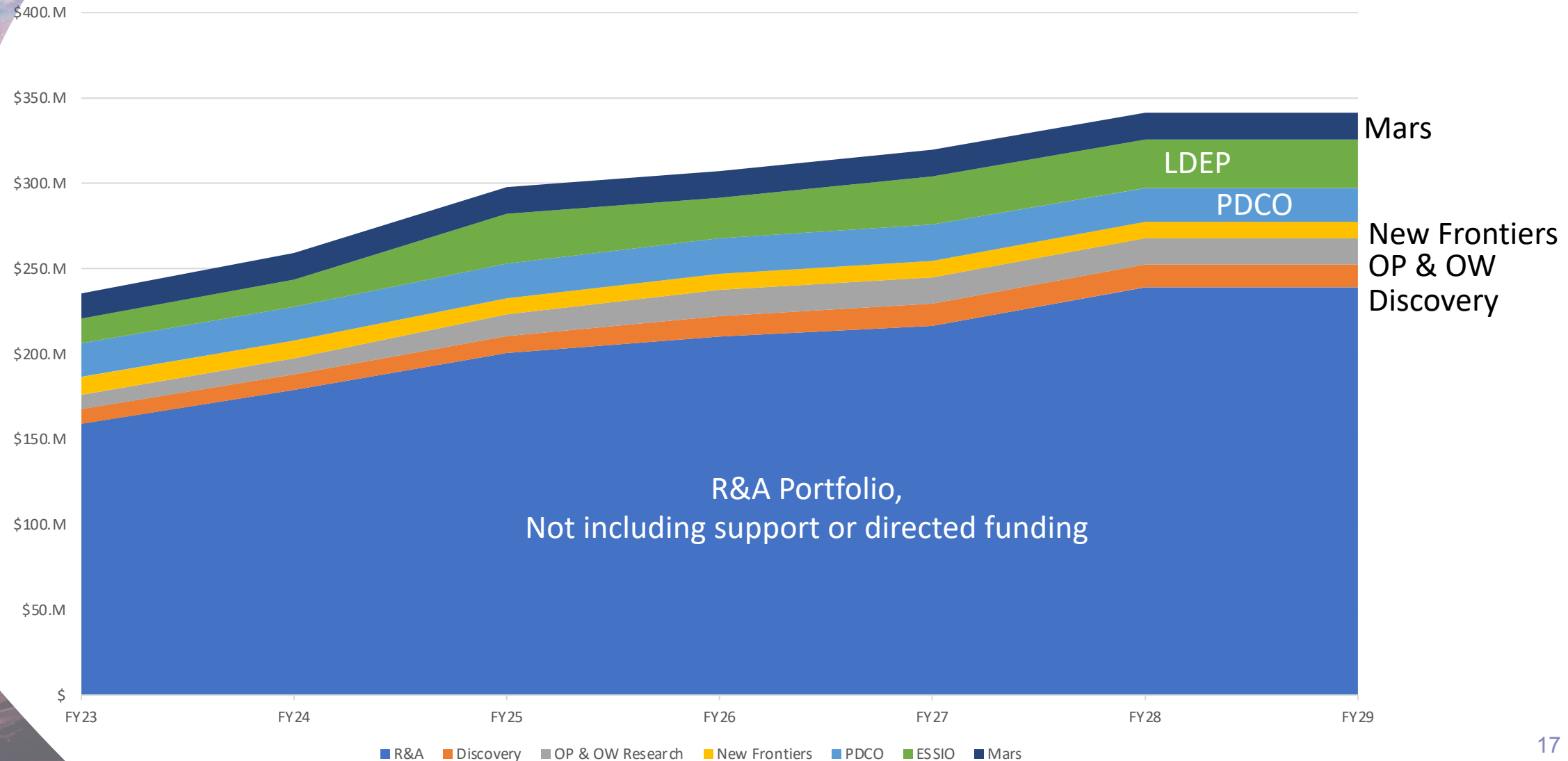
IDEA is funding to kick off the Here 2 Observe program – once established those programs will be funded out of other portfolios

Reserves end up covering research

Support is very lean!

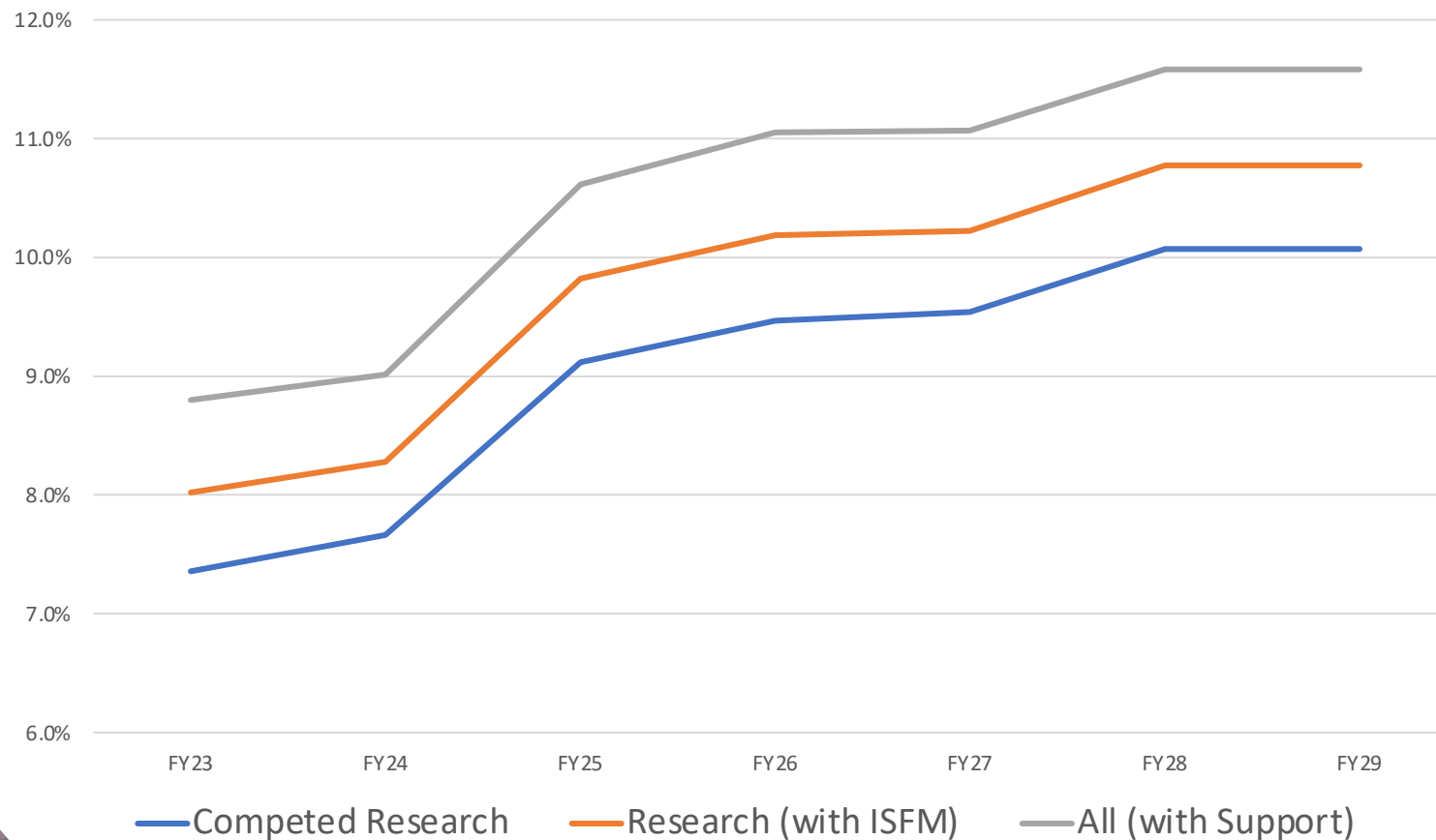
The Outlook for Competed Research

All Competed Research (Research Program)



Decadal Recommendation

Competed Research as % of PSD Budget



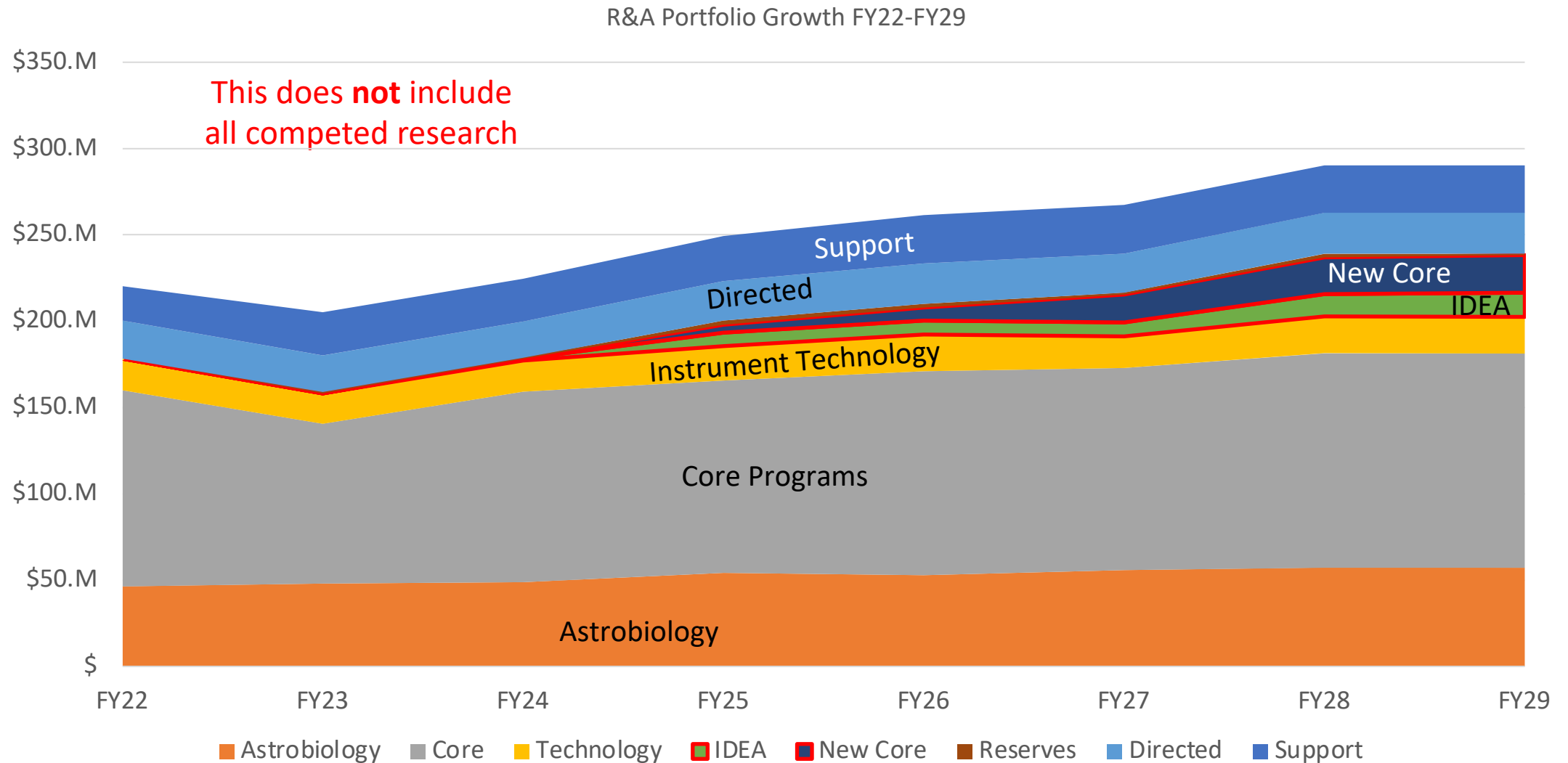
Competed research hits
10.1% in FY28.

If we include ISFM (we
should), 10.2% in FY26

Caveats:

- We do not completely know how the debt ceiling deal will affect FY24 and FY25 budget numbers
- There's a new PBR every year, and no guarantee that numbers will be consistent
- Ultimately, funding levels are set by Congress

Where will that money go?





Philosophy

The growth in R&A is an opportunity to broaden participation and create a more diverse and inclusive community.



Goals

Create conditions necessary for effecting cultural change and developing the vibrant, equitable, inclusive community we seek

- Facilitate co-creation of solutions between the existing community of practice and historically underserved communities
- Inreach and training the community: undertaking education of individuals about the cost of bias, the limitations of homogeneity, the benefits of diversity, and the lived experiences of those "othered" by the system (finding from the DS)
- Outreach to communities of potential: building bridges with communities that have been largely left out of the conversation

Decadal Survey, State of the Profession chapter:

“Consider evidence-based bias education for itself and associated institutions. Honest discussions of policies and practices that no longer serve the functioning of modern scientific enterprises should be sought with enthusiasm that mirrors the enthusiasm NASA PSD brings to its scientific innovation.”



Where does the money go?

- Growing R&A Programs
 - Building capacity
 - Additional funding for support
- New Programs
 - Mission Concept Studies FY25
 - Postdoctoral Fellowship Program FY25
 - Mission: IDEA FY25
 - Cross-Cutting Research Program (?) FY27



FY25 New Programs: Mission Studies

Why?

- There was a crush and a rush to get studies done for the Decadal under the PCMS program
- Need opportunities to allow new concepts to mature earlier
- Maintain momentum for existing concepts

The (tentative) plan:

- Two-year studies at a higher funding level than PMCS
- Studies feed into technology development programs
- Studies are an opportunity to broaden participation
- No more than one study per mission concept

FY25 New Programs: Fellowships

Why?

- Recommendation in the Astrophysics Decadal to have fellowship opportunities at “career boundaries”
- Learn from the success of APD’s Fellowship program(s)

FINESST

Postdoc
Fellowships

ECA

The (tentative) plan:

- High-prestige fellowships going to the postdocs
- Engage with APD to copy as much as makes sense
- Merge Astrobiology NPP fellows into the program
- Come up with a name! (Suggestions?)

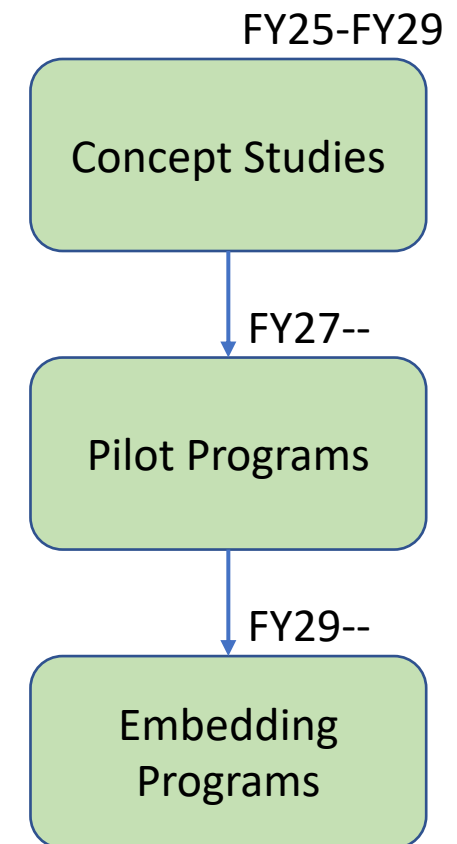
FY25 New Programs: Mission: IDEA

Why?

- Decadal white papers showed that there are ideas
 - Need to mature ideas to include implementation plans and metrics for success
- Encourage collaboration across disciplinary boundaries and across diverse communities
- Provide funding for people doing the heavy lifting

The (tentative) plan:

- The goal is to have proposals led by social scientists with participation from the planetary science community.
- Provide significant funding for concept studies that will explore approaches to improving participation in planetary science
- Focus on IDEA activities that can be embedded, not siloed
- Downselect some studies to become actual pilot programs





Backup Slides



Comparison

NoDD vs. non-NoDD

